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# The Synchronous Association Of Villous Adenoma with Colonic Adenocarcinoma

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THE MULTICENTRICITY OF NEOPLASTIC growths has been frequently reported in the recent literature.[1,3,7,11] A relationship of villous adenomata occurring synchronously with other neoplasms, although noted, has not been the subject of a report.[2,5,6,8,12] Three cases are presented here along with a summary of the incidence of these synchronous lesions as determined from the literature.

## Case Reports

*Case 1.* A 65-year-old white man was admitted with a large bowel obstruction secondary to carcinoma of the sigmoid. After decompression transverse colostomy the patient was returned to surgery where an annular carcinoma of the sigmoid was seen to extend transmurally and invade a contiguous loop of sigmoid, producing a closed loop obstruction (Figure 1). Micropathologic study revealed typical adenocarcinoma (Figure 2). Abdomino-perineal resection with left colectomy and resection of a synchronous villous adenoma of the rectum was carried out. In the fixed state (Figure 3) the typical villous projection of the tumor and its near circumferential involvement of the rectal wall was apparent, and microscopically it was of villous pattern (Figure 4).

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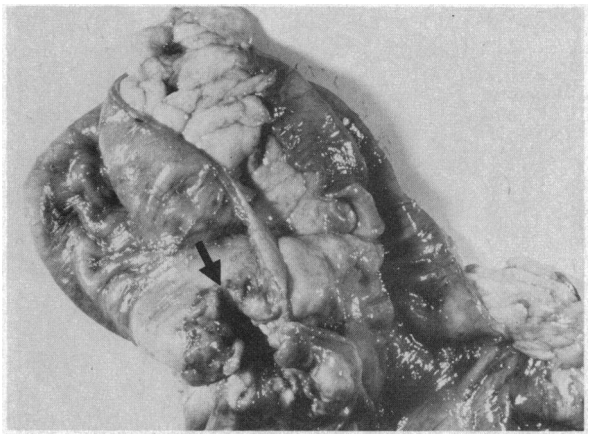

**Figure 1—An ulcerating adenocarcinoma of the distal sigmoid colon (arrow). The tumor penetrated all layers and involved the contiguous proximal sigmoid loop which led to the closed loop obstruction.**

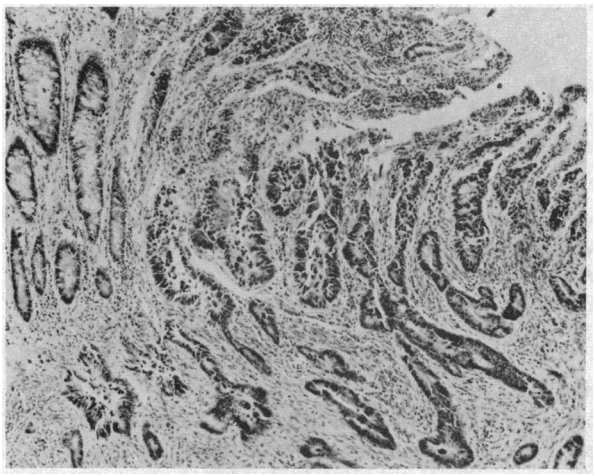

**Figure 2—Microscopic view (X50) of Figure 1 shows representative field of a typical poorly differentiated adenocarcinoma of the sigmoid colon.**

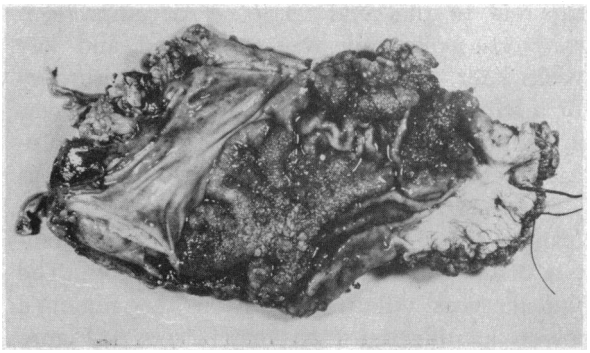

**Figure 3—Formalin fixed anorectal segment of abdomino-perineal resection. A typical villous adenoma with papillary features is seen involving almost the entire circumference of the rectum (suture attached to anal verge).**

**Figure 4—Microscopic (X50) picture of the rectal villous adenoma in Figure 3. Characteristic villous processes with moderate cellular atypism and nuclear stratification are clearly seen.**

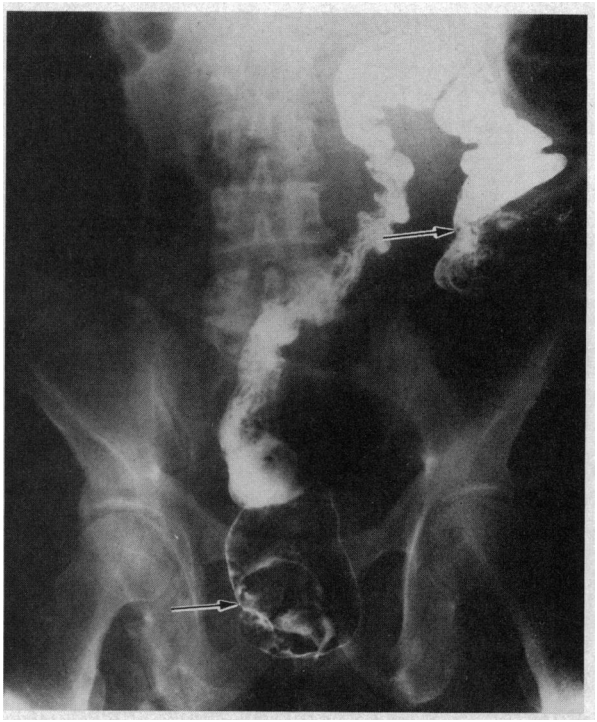

**Figure 5—Selected view of barium enema series demonstrating obstructing annular carcinoma of descending colon (top arrow). An air contrast study of the rectal ampulla demonstrates the villous adenoma (bottom arrow).**

*Case* 2. A 64-year-old white man was admitted with a large bowel obstruction secondary to an annular carcinoma of the descending colon seen roentgenographically in barium enema studies. Proctoscopic examination and barium study (Figure 5) confirmed the finding of a synchronous villous adenoma of rectum, measuring 9 x 4 cm and situated on left anterolateral wall 5 cm proximal to the anal verge. A decompression transverse colostomy was performed and five weeks later the patient was returned to surgery for a left colectomy. The carcinoma grossly was an annular lesion and microscopically was a typical adenocarcinoma (Figure 6). Two months later the patient was returned to surgery where, through a posterior rectotomy, the villous adenoma of the rectum was excised (Figure 7). The typical gross villous feature of the tumor—a velvety, papillary surface—may be seen in Figure 8. Six months later closure of the transverse colostomy was carried out.

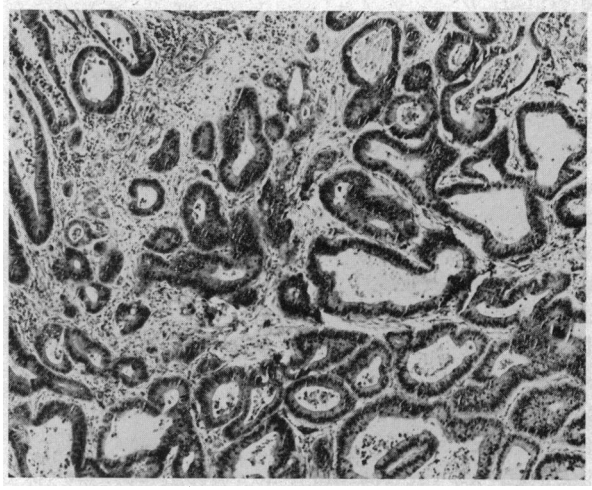

**Figure 6—Microscopic view (X50) demonstrating a well differentiated carcinoma of the descending colon.**

*Case* 3. A 68-year-old white woman complained only of weight loss and on sigmoidoscopy was found to have a villous adenoma about 7.5 cm proximal to the anal verge, measuring 4 x 4 cm and situated on the right anterior wall. Biopsy confirmed the diagnosis (Figure 9). In addition, a barium enema study disclosed an an-

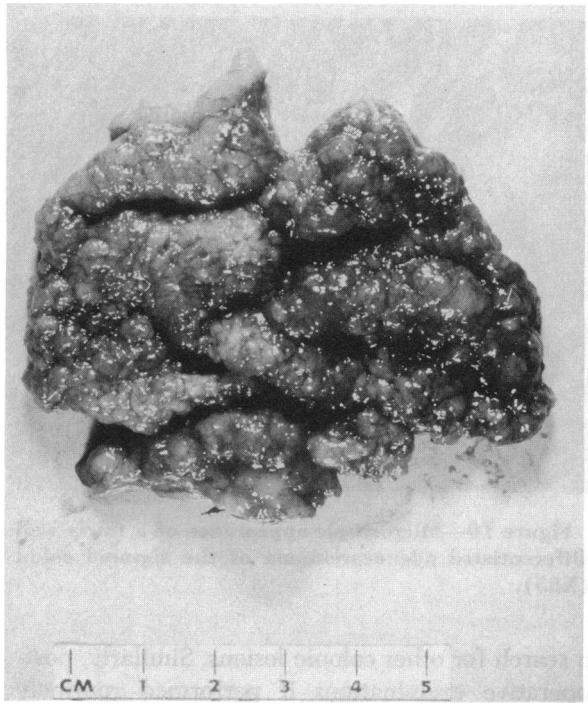


**Figure 7—Gross appearance of resected villous adenoma of the rectum. Not the typical velvety, papillary appearance.**

**Figure 8—Microscopic (X50) picture of villous adenoma shown in Figure 7. Note the characteristic fronds or villous pattern with only minimal cellular atypism.**

nular lesion of the proximal sigmoid colon. At operation metastasis to the liver was observed and a palliative sigmoid resection was carried out. Figure 10 shows the microscopic pattern of an infiltrating well differentiated adenocarcinoma.

The patient did relatively well postoperatively and received chemotherapy. The villous adenoma was treated by combined local excision and fulguration.

## Discussion

Several interesting associations have been noted recently with villous adenomas; two have received much attention in recent years. First is the fascinating fluid and electrolyte deficiency syndrome, associated with the mucorrhea of these neoplasms.[4,10] The second is the 25 to 35 percent incidence of malignant degeneration occurring within these benign lesions.[6,8,9] A third aspect and the subject of this paper is the synchronous association of benign villous adenoma with colonic adenocarcinoma.

That there may be multiple lesions of the colon is, of course, well known. Adenomatous polyps occur in 10 percent of the cases of colonic adenocarcinoma[8] and the adenocarcinomas are multiple in about 5 percent of cases.[1,3,4] This incidence rises to 12 percent when focal carcinoma-in-situ occurring in adenomatous polyps is considered.[1]

Taking only villous adenoma in consideration, Nicoloff reported that up to 57.5 percent will be associated with polyps of the colon.[5] The actual association of villous adenoma with synchronously occurring colonic adenocarcinoma is anywhere from 5 to 7.2 percent.[2,5,6,7,8,9]

Certain clinical features of the synchronous association of colonic adenocarcinoma and villous adenoma should be pointed out. Two of the patients in the cases presented herein had manifestations of large bowel obstruction secondary to the proximal obstructing carcinoma, but there are no unique symptoms or signs of these associated lesions. An exception is the synchronous villous adenoma producing mucorrhea with or without profound symptoms of fluid and electrolyte deficiency.

The villous adenoma is in the rectal area in more than 90 percent of cases,[8] and the diagnosis

**Figure 9—Biopsy specimen of the rectal villous adenoma with typical papillary features and minimal cellular atypism (X85).**

is usually made by the sigmoidoscopic examination, as the gloved finger cannot easily distinguish the soft frondlike pattern of the adenoma from the adjacent mucosa. There are a significant number of villous adenomata occurring above the peritoneal reflection as far proximal as the cecum. The site of the adenoma may therefore be proximal or distal to the colonic adenocarcinoma.

Although attention may first be directed toward surgical extirpation of the adenocarcinoma, multiple biopsy specimens of the adenoma should be studied to rule out malignant degeneration. If malignant, the villous lesion should be excised simultaneously with the adenocarcinoma, if possible, or soon after. Finally, the electrolyte and fluid deficiency syndromes, although not often occurring, may be so profound as to necessitate surgical extirpation of the benign villous adenoma before or perhaps concomitantly with removal of the colon cancer.

## Conclusion

Observation of a villous adenoma or of any colonic neoplasm for that matter, should stimulate

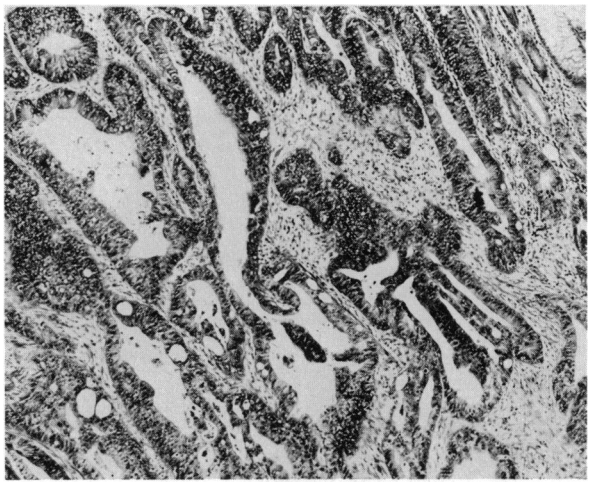

**Figure 10—Microscopic appearance of a fairly well differentiated adenocarcinoma of the sigmoid colon (X85).**

a search for other colonic lesions. Similarly, postoperative examinations if performed routinely can be expected to discover a metachronous carcinoma, that is a second primary malignant lesion, in at least 5 percent of the cases[1] and a benign polyp in at least 10 percent.[8]

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